

## NOTES ON NEOTROPICAL DICTYOPHARIDAE AND SYNONYMY IN TWO OTHER GROUPS

By R. G. FENNAH

The identification of the larger neotropical Dictyopharidae is at present difficult for workers who do not have access to holotype material. The main difficulty arises from the fact that early descriptions failed to give an adequate account of the specific characters.

The notes that follow are principally concerned with holotype material of neotropical Dictyopharidae in the collection of the British Museum of Natural History. It is hoped that they will facilitate identification and enable the reader to recognize and correct errors in existing literature. The writer regrets that it has not proved possible to give a series of figures of genitalia; the holotypes are of different sexes and such a study must await the assembly of material of each species belonging to the same sex. He is nevertheless confident that the characters described below provide reliable criteria for the separation of species.

### Family DICTYOPHARIDAE

#### Tribe DICHOPTERINI

##### Genus DIACIRA Walker

*Diacira* WALKER, 1858, *Insecta Saundersiana*, p. 34. (Haplotype, *D. varia* Walker, *ibid.*)

The type of *D. varia* agrees fairly well with the description and figures given by Spinola (*Ann. Soc. Ent. France*, vol. 8, p. 318, pl. 13, figs. 1a-b) of *Cladodiptera macrophthalma* Spinola, the genotype of *Cladodiptera*. The profemora and protibiae of Walker's type, however, are prominently leaflike, while Spinola does not show or describe any such structure in *C. macrophthalma*. If *Diacira* is to be retained as separate from *Cladodiptera*, this may have to be taken as the generic difference. The species of *Diacira* as so defined show variation in the width of the flanges on the forelegs, and it must be considered possible that further work will bring to light a complete series of intergradations.

## Tribe DICTYOPHARINI

## Genus HYDRIENA Melichar

*Hydriena* MELICHAR, 1912, Abh. Zool. Bot. Ges. Wien, vol. 7, No. 1, p. 50.  
(Orthotype, *H. distanti* Melichar, *ibid.*)

**HYDRIENA FERRUGINEA (Walker), new combination**

## PLATE 2, FIGURES 24-26

*Dichoptera ferruginea* WALKER, 1851, List Hom., vol. 2, p. 305.

*Hydriena distanti* MELICHAR, 1912, Abh. Zool. Bot. Ges. Wien, vol. 7, No. 1,  
p. 50.

Post-tibiae with 5 spines. Tegmina with M forked once in corium; stigma 4-celled; 3 rows of areoles in membrane, 18 areoles along apical margin.

The figures are of Walker's holotype.

## Genus MEGADICTYA Melichar

*Megadictya* MELICHAR, 1912, Abh. Zool. Bot. Ges. Wien, vol. 7, No. 1, p. 64.  
(Orthotype, *M. multispinosa* Melichar, *ibid.*)

**MEGADICTYA OBTUSIFRONS (Walker), new combination**

## PLATE 2, FIGURES 21-23

*Dictyophara obtusifrons* WALKER, 1851, List Hom., vol. 2, p. 318.

*Megadictya multispinosa* MELICHAR, 1912, Abh. Zool. Bot. Ges. Wien, vol. 7,  
No. 1, p. 64.

Vertex conical in outline, longer than broad (1.1:1). Post-tibiae with 5 spines. Tegmina about 13 mm. long, corium occupying less than half of total area; M 3+4 forked before nodal line, stigma 6- or 7-celled; 10 rows of transverse veins distad of nodal line, 22 areoles along apical margin. Pygofer with a straight slender spine at dorsal ends of posterior margin, directed posteriorly and downward.

The figures and data are based on Walker's holotype.

The discovery of the true generic position of *D. obtusifrons* was most unexpected, as the species figured under this name in the *Biologia Centrali-Americana* is a characteristic *Hyalodictyon*. Careful comparison of Walker's description with the holotype leaves no doubt of their perfect agreement. Among other characters Walker mentions a "short luteous stripe" along the lateral margin of the prothorax; the type has an opaque yellowish stripe in this position, which, through

decay of the body contents, has practically disappeared along the anterior half of its length.

The species figured under this name in the *Biologia Centrali-Americana* is dealt with below under *Hyalodictyon*.

**Genus LAPPIDA Amyot and Serville**

*Lappida* AMYOT and SERVILLE, 1843, Hist. Nat. Ins. Hemipt., p. 505. (Haplotype, *Dictyophara proboscidea* Amyot and Serville, *ibid.*)

**LAPPIDA FEROCULA (Distant)**

*Dictyophara ferocula* DISTANT, 1887, Biol. Centr.-Amer., Rhynch. Hom., vol. 1, p. 40, pl. 6, fig. 2.

To judge from the type this would appear to be the largest species in the genus. The type of *Dictyophara chlorochroma* Walker (List Hom., vol. 2, p. 311, 1851) is similar but smaller, while that of *D. compressifrons* Walker (List Hom. Suppl., p. 62, 1858) is smaller than *chlorochroma* and probably distinct. The writer cannot endorse the existing synonymy of these species with any confidence.

**LAPPIDA TUMIDIFRONS (Walker), new combination**

*Dictyophara tumidifrons* WALKER, 1858, List Hom. Suppl., p. 65.

This species stands well apart from others in its short cephalic process. Tegmina narrow, M forked at level of apex of clavus, stigma 1- or 2-celled, 3 rows of transverse veins, infusate, 17 apical areoles, apical veins and a cloud in membrane near stigma infusate.

**Genus DICTYOPHAROIDES Fowler**

*Dictyopharoides* FOWLER, 1900, Biol. Centr.-Amer., Rhynch. Hom., vol. 1, p. 44. (Haplotype, *D. tenuirostris* Fowler, *ibid.*)

Melichar and his followers have suppressed *Dictyophara telifera* Walker under *Toropa ferrifera* (Walker); *Dictyophara filifera* Walker and *D. rufistigma* Walker are currently retained in their original genus. These species, however, all belong to quite different genera, separated by characters given in the following key, which may be related to the writer's key to the New World Dictyopharini (Proc. Biol. Soc. Washington, vol. 57, p. 80, 1944) by substituting it for the name *Dictyopharoides* in that key.

- (1) (2) Clypeus about as large as frons, tegmina with 3 rows of regularly arranged areoles in membrane; eye viewed from above 1.5 times width of vertex, tegmina with M arising from R at base.....*Neomiasa*, new genus
- (2) (1) Clypeus not nearly as large as frons, tegmina with veins of membrane more or less irregular.....(3)
- (3) (4) Tegmina semicircularly rounded apically, cells of membrane not or scarcely longer than broad.....*Dictyopharoides* Fowler
- (4) (3) Tegmina more deeply rounded than above, M forming a common stalk with R for some distance, all cells of membrane much longer than broad, if not, then apical margin abruptly indented in M. Eye in dorsal view equal to width of vertex .....*Paramisia* Melichar

#### Genus *PARAMISIA* Melichar

*Paramisia* MELICHAR, 1912, Abh. Zool. Bot. Ges. Wien, vol. 7, No. 1, p. 79.  
(Orthotype, *P. suturata* Melichar, ibid.)

Width of eye viewed from above equal to width of vertex. Tegmina with stigma 2- or 4-celled, M markedly stalked with R for some distance, apex of tegmen deeply rounded, sometimes abruptly emarginate in M.

#### *PARAMISIA RUFISTIGMA* (Walker), new combination

*Dictyophara rufistigma* WALKER, 1851, List Hom., vol. 2, p. 313.  
*Dictyophara sulcirostris* BERG, 1879, An. Soc. Cient. Argentina, vol. 8, p. 182.

A male specimen of *D. sulcirostris* Berg (labeled Colon, Montevideo 15. v. 96 O. Thomas coll. 1909-337) was found to agree with the female type of *D. rufistigma* Walker, differing only in having an extra cell in the stigma.

#### *PARAMISIA FILIFERA* (Walker), new combination

##### PLATE 2, FIGURES 32-35

*Dictyophara filifera* WALKER, 1858, List Hom. Suppl., p. 64.

Pronotal disc tricarinate, distinctly raised and acute anteriorly. Tegmina with stigma 3-celled, apical margin sharply indented in cell M 3.

Frons with a piceous spot on each side of base of cephalic process. Tegmina with stigma green, membrane evenly brown, with a V-shaped hyaline area extending inward across cell M 3.

The description and figures are of the type. The shape of the tegmina is generally similar to that of the African *Raphiophora*, but the two are not congeneric.

**NEOMIASA, new genus**

Vertex in profile strongly convex, longer than broad (2.6:1), cephalic process about 2.2 times as long as eye. Eye viewed from above 1.5 times width of vertex. Frons longer than broad (1.7:1), lateral margins straight, diverging distally, abruptly incurved just before apex. Width across frontoclypeal suture about three times width across base; clypeus almost as large as frons, lateral margins converging distally; cephalic process in same plane as frons. Pronotum anteriorly convex, posteriorly broadly emarginate, disc devoid of carinae, in form of a rounded-tumid elevation; mesonotum obsoletely carinate or ecarinate. Protibiae slender and elongate, posttibiae 4-spined.

Tegmina semicircularly rounded apically, M forked once in corium, stigma 1- to 2-celled, 2 or 3 rows of transverse veins, about 19 areoles along apical margin.

Egg ellipsoidal, a short filiform process at one pole.

*Genotype*.—*Dictyophara telifera* Walker.

This genus differs from *Paramisia* Melichar in M arising from R at base, vertex in profile more strongly convex, pronotum and mesonotum relatively much broader.

**NEOMIASA TELIFERA (Walker)****PLATE 2, FIGURES 27-31**

*Dictyophara telifera* WALKER, 1858, List Hom. Suppl., p. 64.

The figures are of Walker's type. It will be seen that it differs abundantly from *Toropa ferrifera* (Walker) with which it has been synonymized by Melichar.

**Genus HYALODICTYON Fennah**

*Hyalodictyon* FENNAH, 1944, Proc. Biol. Soc. Washington, vol. 57, p. 86. (Orthotype, *Dictyophara nodivena* Walker, 1858, Insecta Saundersiana, p. 37.)

The identification of the species ascribed to this genus cannot be undertaken with any confidence from existing literature. The species differ in the shape of the cephalic process and to some extent in size. It is probable that when adequate dissections have been made a classification will also be possible on genital characters.

The main source of confusion has been the assumption by older workers, with the notable exception of Walker, that the species of *Hyalodictyon* (considered as belonging to *Dictyophara* Germar) were

more plastic than they are. As a result, a single name has been used to cover a mixture of species, and unjustifiable synonymies have been created. The confusion has been increased by the publication of wrongly labeled figures, and in this respect the *Biologia Centrali-Americana* is not free from blemish.

To facilitate identification of species of *Hyalodictyon* the writer offers camera-lucida drawings made by him from the respective holotypes in the British Museum. It has been found necessary to propose two new species, the types of which have been selected from material listed in the *Biologia*.

#### HYALODICTYON NODIVENA (Walker)

##### PLATE I, FIGURES 1-4

*Dictyophara nodivena* WALKER, 1858, *Insecta Saundersiana*, p. 37.

This is the largest known species in the genus. The proportions of the frons are distinctive and characteristic. The apical areoles in the tegmina are very short, some of them not longer than broad. The swellings on the veins of the membrane in M do not constitute a specific character, although they are perhaps more evident in this species than in any other.

#### HYALODICTYON TEAPANUM, new species

##### PLATE I, FIGURES 5, 11

*Dictyophara nodivena* DISTANT, 1887, *Biol. Centr.-Amer.*, *Rhynch. Hom.*, vol. 1, p. 40, pl. 6, fig. 3.

This species, represented by a fair series, is quite distinct from the preceding. The laterodorsal angles of the frons are less obtuse than in *nodivena* Walker, the sides of the frons are distinctly more concave, while the intermediate carinae of the frons are relatively more widely separated at the base. The frons of *nodivena* Walker is actually broader than that of *teapanum* as well as being broader in relation to the median length (*H. nodivena*, 2.4 to 1; *H. teapanum*, 2.5 to 1). The type of *teapanum* is the specimen from Bugaba figured in the *Biologia* as *D. nodivena* Walker. Among other specimens in the series are some from Teapa.

#### HYALODICTYON TRUNCATUM (Walker)

##### PLATE I, FIGURES 6-10

*Dictyophara truncata* WALKER, 1851, *List Hom.*, vol. 2, p. 316.

This species is slightly smaller than *nodivena* (Walker), from



which it differs strongly in the distinctly narrower frons and more elongated vertex as well as in the relatively longer apical areoles in the tegmen. *H. truncatum* is superficially very similar to *H. teapanum* but differs in having the lateral lobes of the pronotum wider than deep, while in *teapanum* they are deeper than wide. In *truncatum* cell M 1+2 in the corium is much shorter than its stalk, while cell Cu<sub>1</sub> is about as long as its stalk; in *H. teapanum* both these cells are longer than their respective stalks. The stigma of *H. truncatum* is 5-celled.

The most significant difference among the specimens available was found in the shape of the third valvulae of the ovipositor, these of *H. truncatum* being much more slender than in *teapanum* (see figures from holotypes).

#### HYALODICTYON PLATYRHINA (Walker)

##### PLATE I, FIGURE 12

*Dictyophara platyrhina* WALKER, 1851, List Hom., vol. 2, p. 311.

This species is almost as large as *nodivena* (Walker) from which it differs markedly in the longer vertex and relatively broader and transverse apex. It is nearest in appearance to *H. teapanum*, but the lateroapical angles of the head are more prominent and the anterior margin of the vertex is truncate, not rounded as in the latter species. *H. platyrhina* is the most readily recognizable species in the genus.

#### HYALODICTYON FUSIFORME (Walker)

##### PLATE I, FIGURE 18

*Dictyophara fusiformis* WALKER, 1851, List Hom., vol. 2, p. 315.

This species is distinguished from all the preceding by the relatively narrower vertex, the obtusely rounded lateroapical angles, and the rounded apical margin. The type is not quite so large as the preceding species.

#### HYALODICTYON FALLAX Fennah

*Hyalodictyon fallax* FENNAH, 1945, Proc. U. S. Nat. Mus., vol. 95, p. 456.

This species, as noted in the original description and shown in plate 11, figures 239-242, differs from *H. truncatum* (Walker), which it generally resembles, in the straight sides of the vertex and frons. This distinction has been found to hold good in specimens more recently taken by the writer (2 ♀♀, Maracas pool, Trinidad, Sept. 28, 1945).

**HYALODICTYON BUGABAE, new species**

PLATE I, FIGURES 15, 16

*Dictyophara obtusifrons* DISTANT, 1887, Biol. Centr.-Amer., Rhynch. Hom., vol. 1, p. 40, pl. 6, fig. 6.

The shape of the vertex of this species recalls that of *H. nodivena* (Walker), but its apex is more rounded and the lateroapical angles are less prominent. The frons is relatively narrower and the curve of the intermediate carinae at the base is different. The species is definitely smaller than *H. nodivena*. The type selected is a male taken by Champion (Volcán de Chiriquí, 800-1,500 ft.).

**HYALODICTYON BRACHYRHINA (Walker)**

PLATE I, FIGURE 17

*Dictyophara brachyrhina* WALKER, 1851, List Hom., vol. 2, p. 317.

This species is superficially not unlike *Mitrops dioxys* (Walker) (= *Nersia curviceps* Stål), but naturally these species differ in generic characters. The type of *M. dioxys* (Walker) has narrow elongated third valvulae; *H. brachyrhina* (Walker) has broadly ovate third valvulae three times as broad as in the former. In dorsal view the vertex somewhat resembles that of *Mitrops noctividus* (L.) but in profile it is quite flat, not upturned apically. The margins and carinae in the type of *brachyrhina* are red.

**HYALODICTYON CENTRALI-AMERICANUM, new species**

PLATE I, FIGURES 13, 14

*Dictyophara brachyrhina* DISTANT, 1887, Biol. Centr.-Amer., Rhynch. Hom., vol. 1, p. 40, pl. 6, fig. 5.

*Male*.—Length, 8.0 mm.; tegmen, 10.0 mm.

Vertex longer than broad (1.8:1) tapering distally, lateral angles not prominent, apex broadly rounded. Frons longer than broad (3.4:1) of subequal width throughout, lateral margins slightly sinuate.

The type male was taken by G. C. Champion at Zapote, Guatemala.

**Genus TAOSA Distant**

*Taosa* DISTANT, 1906, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 355. (Orthotype, *T. suturalis* Germar, 1830, Thon's Ent. Arch., vol. 2, No. 2, p. 48.)



**TAOSA INEXACTA (Walker)**

*Dictyophara inexacta* WALKER, 1858, Insecta Saundersiana, p. 38.

*Taosa paraherbida* MUIR, 1931, Proc. Hawaiian Ent. Soc., vol. 7, p. 474, pl. X, fig. 9.

Walker's holotype agrees perfectly with a specimen of *Taosa paraherbida* Muir in the British Museum bearing Muir's paratype label. In view of the fact that the holotype of Muir's species is untraceable, this specimen becomes the residual type. *T. inexacta* (Walker) is not synonymous with *T. herbida* (Walker) as given by Distant, and it is noteworthy that the characteristic difference in the coloration of the frons between these species is clearly stated in Walker's original descriptions.

**TAOSA SCRIPTIVENTRIS (Walker)**

PLATE 2, FIGURES 43, 44

*Cladodiptera scriptiventris* WALKER, 1858, List Hom. Suppl., p. 76.

*Taosa pseudoscriptiventris* MUIR, 1931, Proc. Hawaiian Ent. Soc., vol. 7, p. 472.

The type of *T. pseudoscriptiventris* Muir is not distinguishable from the holotype of *scriptiventris* (Walker) except by a darker suffusion overlying the sutural line, and in its slightly larger size (Muir's type: tegmen, 10 mm.; Walker's type: tegmen, 9 mm.). The two types are female and the genitalia are externally indistinguishable. Specimens in the Biologia Centrali-Americana series of *scriptiventris* (Walker) are larger than either of the preceding but are closely similar, though with rather more extensive brown suffusion on the membrane. These are considered to be geographical representatives of the South American type.

**TAOSA VETRATA (Fabricius)**

PLATE 1, FIGURES 19, 20

*Flata vitrata* FABRICIUS, 1803, Syst. Rhynch., p. 48.

Dr. S. L. Tuxen, of the Universitetets Zoologiske Museum, Copenhagen, has kindly prepared drawings from the Fabrician type (reproduced herewith) and has compared with it drawings of the type of *Cladodiptera viridifrons* Walker. The two species are evidently distinct, and the synonymy created by Distant (Biol. Centr.-Amer., Rhynch. Hom., vol. 1, p. 41), followed by Melichar (1912) and Fennah (1945), is erroneous.

**TAOSA VIRIDIFRONS (Walker)**

PLATE 2, FIGURES 41, 42

*Cladodiptera viridifrons* WALKER, 1858, *Insecta Saundersiana*, p. 41.

The holotype of Walker's series agrees with the insect identified in the *Biologia Centrali-Americana* (Distant, vol. 1, p. 41, 1887) as *Dictyophara vitrata* (Fabricius). The specimen also agrees with Melichar's description of *Taosa suturalis* Germar (Abh. Zool. Bot. Ges. Wien, vol. 7, No. 1, p. 153, 1912). It is considered to be distinct.

**TAOSA MULIEBRIS (Walker)**

PLATE 2, FIGURES 37, 38

*Cladodiptera muliebris* WALKER, 1858, *List Hom. Suppl.*, p. 76.

This species appears to be quite distinct, and the suppression of it as a synonym of *suturalis* Germar (Muir, 1931) cannot be upheld. The figures are of the holotype.

**TAOSA TERMINALIS (Germar)**

PLATE 2, FIGURES 39, 40

*Flata terminalis* GERMAR, 1830, *Thon's Ent. Arch.*, vol. 2, No. 2, p. 48.  
*Cladodiptera virilis* WALKER, 1858, *List Hom. Suppl.*, p. 75.

Walker's holotype of *virilis* is figured.

**TAOSA SORORCULA (Berg)**

PLATE 2, FIGURE 36

*Dictyophara sororcula* BERG, 1879, *An. Soc. Cient. Argentina*, vol. 8, p. 183.

The figure is based on a specimen in the British Museum.

**Genus TARACTICUS Berg**

*Taracticus* BERG, 1881, *An. Soc. Cient. Argentina*, vol. 12, p. 265. (Orthotype,  
*Cixius chilensis* Spinola, 1852, in Gay, *Hist. de Chile*, Zool., vol. 7, p. 249.)  
*Chondrodera* MELICHAR, 1912, *Abh. Zool. Bot. Ges. Wien*, vol. 7, No. 1, p. 157.  
(Orthotype, *C. granicollis* Melichar, *ibid.*, p. 158.)

**TARACTICUS CHILENSIS (Spinola)**

*Cixius chilensis* SPINOLA, 1852, *loc. cit.*  
*Chondrodera chilensis* MELICHAR, 1912, *loc. cit.*, p. 159.

The writer, on the basis of Chilean material examined by him, con-

siders it necessary to establish the above generic and specific synonymies.

## Family TROPIDUCHIDAE

### Tribe TAMBINIINI

#### Genus ROTUNOSA Distant

*Rotunosa* DISTANT, 1906, Ann. Mag. Nat. Hist. ser. 7, vol. 18, p. 353. (Orthotype, *Dictyophara indicanda* Walker, 1858, List Hom. Suppl., Addenda, p. 318.)

*Roesma* FENNAH, 1945, Proc. U. S. Nat. Mus., vol. 95, p. 481. (Orthotype, *R. grandis* Fennah, *ibid.*, p. 482.)

#### ROTUNOSA GRANDIS (Fennah), new combination

Material of *R. grandis* Fennah, when compared with Walker's holotype, proved to be definitely congeneric. The species are quite readily separated by the proportions of the vertex.

### Tribe PARICANINI

#### Genus NEOMMATISSUS Muir

*Neommatissus* MUIR, 1913, Proc. Hawaiian Ent. Soc., vol. 2, p. 267. (Orthotype, *N. spurcus* Muir, *ibid.*)

As this genus has been included in a recent catalogue of Dictyopharidae (General Catalogue of Hemiptera, fasc. IV, pt. 8, p. 71), it is advisable to record that the genotype is a paricanine tropiduchid, as are those of the synonymous genera *Stacotoides* Distant and *Trobolophya* Melichar. The species are quite conveniently separated by the venation of the tegmina.

#### NEOMMATISSUS CONGRUUS (Walker), new combination

#### PLATE 2, FIGURE 45

*Brixia congrua* WALKER, 1870, Journ. Linn. Soc. Zool., vol. 10, p. 110.

*Neommatissus spurcus* MUIR, 1913, Proc. Hawaiian Ent. Soc., vol. 2, p. 267.

Material of *N. spurcus* Muir bearing Muir's determination label cannot be distinguished from the holotype of *Brixia congrua* Walker. The mesonotal carinae are strongly elevated. The figure is from Walker's mutilated holotype.

## Family CIXIIDAE

## Tribe PINTALIINI

## Genus PINTALIA Stål

*Pintalia* STÅL, 1862, Bidr. Rio-Janeiro Trakt. Hemipt., vol. 2, p. 4. (Logotype, *P. lateralis* Stål, *ibid.*)

## PINTALIA CONSTELLARIS (Walker), new combination

*Poeciloptera constellaris* WALKER, 1858, List Hom. Suppl., Addenda, p. 335.

*Pintalia quadrimaculata* FENNAH, 1945, Proc. U. S. Nat. Mus., vol. 96, p. 96, pl. 2, fig. 1.

An examination of Walker's holotype leaves no doubt concerning the synonymy given above.

## Tribe CIXIINI

## Genus OLIARUS Stål

*Oliarus* STÅL, 1862, Berlin Ent. Zeitschr., vol. 6, p. 306. (Logotype, *O. walkeri* Stål, 1859, Freg. Eugen. Resa, p. 272.)

## OLIARUS VILIS (Walker), new combination

*Cixius vilis* WALKER, 1857, Journ. Linn. Soc. Zool., vol. 1, p. 148.

Although the head of the female holotype is missing, its description, the size, quinquecarinate mesonotum, tegminal venation, and the characteristic genitalia indicate that this species belongs in *Oliarus*.

## EXPLANATION OF PLATES

## PLATE I

- FIGS. 1-4. *Hyalodictyon nodivena* (Walker). 1, vertex and pronotum; 2, frons; 3, vertex in profile; 4, apex of tegmen.
5. *Hyalodictyon teapanum* Fennah. Frons.
- 6-10. *Hyalodictyon truncatum* (Walker). 6, vertex and pronotum; 7, vertex in profile; 8, apex of tegmen; 9, frons; 10, third valvula of ovipositor.
11. *Hyalodictyon teapanum* (Walker). Third valvula of ovipositor.
12. *Hyalodictyon platyrhina* (Walker). Vertex and pronotum.
- 13, 14. *Hyalodictyon centrali-americanum* Fennah. 13, vertex and pronotum; 14, frons and clypeus.
- 15, 16. *Hyalodictyon bugabae* Fennah. 15, frons and clypeus; 16, vertex and pronotum.
17. *Hyalodictyon brachyrhina* (Walker). Vertex and pronotum.
18. *Hyalodictyon fusiforme* (Walker). Vertex and pronotum.

- 19, 20. *Taosa vitrata* (Fabricius). 19, frons and clypeus; 20, vertex and pronotum.

## PLATE 2

- FIGS. 21-23. *Megadictya obtusifrons* (Walker). 21, vertex and pronotum; 22, frons and clypeus; 23, pygofer, anal segment, and genital style.
- 24-26. *Hydriena ferruginea* (Walker). 24, vertex in profile; 25, frons and clypeus; 26, vertex and pronotum.
- 27-31. *Neomiasa telifera* (Walker). 27, egg in frontal and side views; 28, vertex and pronotum; 29, vertex in profile; 30, apical half of tegmen; 31, frons and clypeus.
- 32-35. *Paramisia filifera* (Walker). 32, vertex in profile; 33, vertex and disc of pronotum; 34, frons and clypeus; 35, apical part of tegmen.
36. *Taosa sororcula* (Berg). Vertex and pronotum.
- 37, 38. *Taosa muliebris* (Walker). 37, vertex and pronotum; 38, frons and clypeus.
- 39, 40. *Taosa terminalis* (Germar). 39, vertex and pronotum; 40, frons and clypeus.
- 41, 42. *Taosa viridifrons* (Walker). 41, vertex and pronotum; 42, frons and clypeus.
- 43, 44. *Taosa scriptiventris* (Walker). 43, vertex, pronotum, and mesonotum; 44, frons and clypeus.
45. *Neommatissus congruus* (Walker). Right half of mesonotum and tegmen.